

**REMARKS**

The following remarks are submitted to address the above amendments and issues raised in the Official Action mailed June 7, 2004.

A Request for Extension of Time, and payment therefor, to extend the period for filing a response to this Official Action for one month to October 7, 2004, is filed herewith.

Upon entry of the foregoing amendments, claims 1-67 are now pending in this application. Claims 1-43, 48, 50, 51, 56, 58, 59, 64, 66, and 67 stand withdrawn from consideration. Claims 44-47, 49, 52-55, 57, 60-63, and 65 stand rejected under 35 USC § 103(a), as being unpatentable over EP 0581274 to Kamata et al. in view of EP 0436729 to Yamato et al.

No new matter has been added. Support for requested amendments can be found in the original claims and throughout the present specification and drawings. Applicant respectfully requests consideration of the application in light of the above amendments and the following remarks.

**Interview with Examiner – September 14, 2004**

Applicant thanks Examiner Cole for a telephone interview conducted on September 14, 2004. In the interview, Examiner Cole and the undersigned discussed that because the claims at issue are product-by-process claims, Applicant should show that the order of steps in the claims makes a difference in the claimed product as compared to products made by the processes in the cited references. In particular, Examiner Cole and the undersigned agreed that a declaration pointing out the differences in adsorption of microcapsules onto and into textile materials when applied according to the present invention as compared to when applied in the presence of a

binder would be appropriate to show that a product made in accordance with the present invention is a different and non-obvious product.

**Claims 44-47, 49, 52-55, 57, 60-63, and 65 — 35 USC § 103(a)**

The rejections of claims 44-47, 49, 52-55, 57, 60-63, and 65 under 35 USC § 103(a) as being unpatentable over Kamata et al. in view of Yamato et al. are respectfully traversed.

Claim 44 of the present invention claims “[a] textile material having microcapsules applied thereto, the microcapsules applied to the textile material by: contacting the textile material with the microcapsules; followed by dispersing the microcapsules around and through the textile material with a dispersant; and then followed by adhering the dispersed microcapsules to the textile material with a binder, wherein the microcapsules are evenly distributed around and through the textile material so as to be evenly applied to the textile material.” (Claim 44, as amended.)

Claim 52 of the present invention claims “[a] textile material having microcapsules applied thereto, the microcapsules applied to the textile material by sequential steps comprising . . . physically dispersing the microcapsules in the bath to contact the textile material with the microcapsules; dispersing the microcapsules around and through the textile material with a silicone-based dispersant; . . . [and] adding a binder to the bath to adhere the dispersed microcapsules to the textile material . . . wherein the microcapsules are thoroughly dispersed and evenly applied to the textile material.” (Claim 52, as amended.)

Claim 60 of the present invention claims “[a] textile material having microcapsules applied thereto, the microcapsules applied to the textile material by sequential steps comprising . . . stirring the bath for three minutes to physically disperse the microcapsules and contact the textile material with the microcapsules; dispersing the microcapsules around and through the

textile material with a dispersant, the dispersant being a silicone finish having a cationic charge; . . . [and] adding an acrylic binder having a cationic charge to adhere the dispersed microcapsules to the textile material . . . wherein the microcapsules are thoroughly dispersed and evenly applied to the textile material.” (Claim 60, as amended.)

The Official Action states that Kamata et al. discloses a textile material which may be formed into a garment and which is placed in a bath with microcapsules which contain a fragrance, and that the microcapsules are taken up by the fabric. The Official Action states that Kamata et al. differs from the claimed invention because Kamata et al. does not teach employing a binder to further fix the microcapsules to the textile fabric, does not teach incorporating a moisturizer into the fabric, and does not teach that the textile is hosiery. The Official Action states that Yamato et al. teaches that a small amount of a binder may be incorporated into the mixture comprising microcapsules which are to be applied to a fabric and that the binder helps to adhere the microcapsules to the fabric. The Official Action states that it would have therefore been obvious to one of ordinary skill in the art, and one of ordinary skill in the art would have been motivated by the teaching of Yamato et al., to employ a binder in applying the microcapsules to the fabric of Kamata et al. to further enhance the bonding of the microcapsules and the fabric. (Official Action, para. 2.)

The Official Action states that Yamato et al. teaches that microcapsules which are applied to a fabric such as a garment may comprise moisturizers and other skin conditioning agents in addition to fragrant components, and that suitable garments to which such microcapsules could be applied include hosiery. The Official Action states that it would therefore have been obvious to have incorporated a moisturizer in addition to a fragrance in the microcapsules of Kamata et al. and to have applied the microcapsules to hosiery as taught by Yamato et al., motivated by the expectation that doing so would enhance the fabric of Kamata et al. by making it moisturizing in addition to being fragrant and because Yamato et al. teaches that since hosiery is in direct contact with skin, the fragrant, moisturizing microcapsules would be most effective. (Official Action, para. 2.)

The Official Action states that with regard to the process limitations and the order of steps claimed, product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps; that even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself; and that if the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. The Official Action states that once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to the Applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. (Official Action, para. 2.)

The Official Action states that Kamata et al. teaches that the microcapsules should be dispersed into the solution and applied to the textile so that the textile takes up all of the solution including the microcapsules, and therefore, Kamata et al. teaches that the microcapsules should be fully adsorbed by the fabric. (Official Action, para. 3.)

Applicant respectfully submits a Declaration of inventor Larry Harris, enclosed herewith. As pointed out in this Declaration, a textile material of the present invention is a different product as compared to products made by a prior art process. In particular, inspection of pantyhose garments having microcapsules applied in the presence of a binder, as in the combination process of Kamata et al. and Yamato et al., showed 48-120 microcapsules per microscope field viewing area. In contrast, inspection of pantyhose having microcapsules applied first, followed by dispersing with a dispersant, and then adding a binder, as in the present invention, showed 175-200 microcapsules per viewing area. (*See* Declaration of Harris, para. 6.) Therefore, a product made by a process of the present invention is a different, non-obvious product as compared to products made by the combination process of Kamata et al. and Yamato et al.

Applying microcapsules in the presence of a binder, such as in the combination process of Kamata et al. and Yamato et al., causes the microcapsules to adhere only to the first surface of a textile material contacted, creating a tendency of the microcapsules to layer on the material surface and be more likely to subsequently “flake” away. The facts in the Declaration of Harris establish that a textile material made by the order of steps as in the present invention has a greater distribution and penetration of microcapsules on and through the material than a product made by the combination process of Kamata et al. and Yamato et al. This unexpected difference of more even distribution and penetration of microcapsules on and through a textile material made according to the present invention provides several commercial advantages. Such commercial advantages include, for example, adhered microcapsules that are less likely to “flake” away from the material, an excellent “hand”, utilization of a much lower volume of microcapsules, and adherence of more microcapsules to the material for increased delivery of the microcapsule contents over a longer period of time. As a result, the differences between a textile material made by a process of the present invention and a product made by the combination process of Kamata et al. and Yamato et al. would not have been obvious to one of ordinary skill in the art.

With respect to the teaching of Kamata et al. that a textile material takes up all microcapsules in a solution, Kamata et al. discloses a cationized textile product into which microcapsules are almost completely exhausted so that essentially no perfume-containing microcapsules are left in the liquid remaining in the vat. (Kamata et al., page 7, line 56 – page 8, line 2.) However, Kamata et al. does not disclose where the textile product uptakes the microcapsules – on the surface or throughout the product, that is, in the spaces between the fibers. In the present invention, the sequence of steps claimed in claims 44, 52, and 60 provides an improved textile material, “wherein the microcapsules are evenly distributed around and through the textile material so as to be evenly applied to the textile material.” Such a textile material avoids the tendency of materials made with microcapsules introduced in the presence of a binder, as in the combination of teachings of Kamata et al. and Yamato et al., to adhere to the first surface of the material contacted by the microcapsule / binder combination. Thus, textile materials according to claims 44, 52, and 60 advantageously provide for more thorough and

more *even* penetration of microcapsules in a textile material. Accordingly, a textile material of the present invention is made by a process different than a combination of processes taught by these two references. Thus, a textile material of the present invention is a different, non-obvious product as compared to products made by the combination process of Kamata et al. and Yamato et al. (*See Declaration of Harris.*) Therefore, Applicant respectfully submits that claims 44, 52, and 60 of the present invention are not obvious over Yamato et al. in view of Kamata et al.

In addition, neither Kamata et al. or Yamato et al. disclose or suggest such an unexpectedly different textile material made by the sequence of steps as in claims 44, 52, and 60, in combination with a moisturizer, a fragrance, and/or use in a hosiery garment as in the present invention. Claims 45-47 and 49 are dependent on claim 44; claims 53-55 and 57 are dependent upon claim 52; and claims 61-63 and 65 are dependent upon claim 60. Accordingly, none of claims 44-47, 49, 52-55, 57, 60-63, and 65 would have been obvious in view of these two references.

For all of these reasons, the Office is respectfully requested to withdraw the rejections of claims 44-47, 49, 52-55, 57, 60-63, and 65 under 35 USC § 103(a).

### CONCLUSION

Applicant submits that a full and complete response has been made herein to the Official Action and, as such, all pending claims in this application are now in condition for allowance. Therefore, Applicant respectfully requests early consideration of the present application, entry of all amendments herein requested, withdrawal of all rejections, and allowance of all pending claims.

The Office is respectfully invited to contact J. Michael Boggs at (336) 747-7536, to discuss any matter relating to this application.

Respectfully submitted,

10/1/04  
Date

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